

**Draft**

## GOODERICH BAYOU DRAFT EA

### MEPA/NEPA/HB495 GENERIC CHECKLIST

#### **PART I. PROPOSED ACTION DESCRIPTION**

1. Type of Proposed State Action: Control of rainbow trout by means of a fish barrier.
2. Agency Authority for the Proposed Action:
3. Name of Project: Gooderich Bayou Fish Barrier.
4. Name, Address and Phone Number of Project Sponsor (if other than the agency):
5. If Applicable:

Estimated Construction/Commencement Date: April 2003

Estimated Completion Date: April 2003

Current Status of Project Design (% complete): 75%

6. Location Affected by Proposed Action (county, range and township):

Flathead County, T29N, R23W, S23

7. Project Size: Estimate the number of acres that would be directly affected that are currently:

(a) Developed:  
residential ..... \_ acres  
industrial ..... \_ acres

(b) Open Space/Woodlands/  
Recreation ..... \_ acres

(c) Wetlands/Riparian  
Areas ..... \_ acres

(d) Floodplain ..... 0.1 acres

(e) Productive:  
irrigated cropland..... \_ acres  
dry cropland..... \_ acres  
forestry ..... \_ acres  
rangeland..... \_ acres  
other ..... \_ acres

8. Map/site plan: attach an original 8 1/2" x 11" or larger section of the most recent USGS 7.5' series topographic map showing the location and boundaries of the area that would be affected by the proposed action. A different map scale may be substituted if more appropriate or if required by agency rule. If available, a site plan should also be attached.

9. Narrative Summary of the Proposed Action or Project Including the Benefits and Purpose of the Proposed Action.

Westslope cutthroat trout are an important native fish species in the Flathead drainage and throughout western Montana. Westslope cutthroat trout have been petitioned for listing under the Endangered Species Act. In 2000, the U.S. Fish and Wildlife Service ruled that listing was not warranted. However, a district court judge ordered the Service to review its finding and this time consider the threat that hybridization has to the species. Hybridization with rainbow trout has also been recognized as a major threat to the Flathead population. Limiting the number of rainbow trout produced in the Flathead River system will aid in safeguarding the native westslope cutthroat trout by reducing opportunities for hybridization between the two species.

Gooderich Bayou is a backwater channel of the Flathead River. Each spring for the last several years, Montana Fish, Wildlife & Parks (MFWP) has observed rainbow trout reproducing at several locations, namely those associated with gravel deposits near the Capistrano Drive crossing and the Gooderich Road Bridge crossing. Surveys during the 2001 spawning season revealed that 22 spawning redds (nests) were produced, and an additional 44 sexually mature rainbow trout were captured in a trap placed at the inlet of the Capistrano Drive culvert. In 2002, 17 spawning redds were produced and an additional 22 sexually mature rainbow trout were sampled in the trap. Based on these findings, Gooderich Bayou has the potential to recruit nearly 2,500 rainbow trout to the Flathead River system annually.

Rainbow trout spawning occurs on gravel deposits located at the Capistrano Drive crossing. Fish also enter a culvert under this crossing and continue upstream to spawn near the Gooderich Road Bridge crossing. The main culvert that runs under the Capistrano Drive crossing is failing near its middle. Continued inundation during high spring flows will ultimately cause this culvert to collapse, resulting in a catastrophic failure of the road. MFWP is proposing to replace this culvert and install a fish barrier on one end to prevent rainbow trout from traveling upstream to spawn at the bridge site. During the construction process, MFWP will remove the gravel at the outlet end of the culvert to prevent rainbow trout from spawning there.

MFWP has implemented similar projects aimed at controlling hybridization between rainbow trout and native westslope cutthroat trout.

10. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction.

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Date Filed/#</u>
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United States Army Corps of Engineers		
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- Nationwide permit		
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Montana Department of Environmental Quality		
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- Exemption of water quality standards		
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(b) Funding:

Agency Name                      Funding Amount

Bonneville Power Administration

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

Agency Name                      Type of Responsibility

United State Fish and Wildlife Service

-Administration of the Endangered Species Act, where listed species may occur

11. List of Agencies Consulted During Preparation of the EA:

Bonneville Power Administration

United State Fish and Wildlife Service

United States Army Corps of Engineers

Montana Department of Environmental Quality

## **PART II. ENVIRONMENTAL REVIEW**

A. Evaluation of the Impacts of the Proposed Action Including Secondary and Cumulative Impacts on the Physical and Human Environment:

### **PHYSICAL ENVIRONMENT**

1. <u>LAND RESOURCES</u>  Will the proposed action result in:	IMPACTS				Can Impacts Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Soil instability or changes in geologic substructure?		x				
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil, which would reduce productivity or fertility?		x				
c. Destruction, covering, or modification of any unique geologic or physical features?		x				
d. Changes in siltation, deposition, or erosion patterns that may modify the channel of a river or stream, or the bed or shore of a lake?			x			1d.
e. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

1d. This project would actually improve erosion and /or deposition patterns by replacing a culvert that is likely to fail, which would result in the catastrophic failure of the dike and road. Such a failure could result in significant amounts of sediment added to the Flathead River system.

### **PHYSICAL ENVIRONMENT**

2. <u>AIR</u>  Will the proposed action result in:	IMPACTS				Can Impacts Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Emission of air pollutants or deterioration of ambient air quality?		x				
b. Creation of objectionable odors?		x				
c. Alteration of air movement, moisture or temperature patterns, or any change in climate, either locally or regionally?		x				
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?		x				
e. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Air Resources (Attach additional pages of narrative if needed):

\*Include an attachment with a narrative explanation describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

**PHYSICAL ENVIRONMENT** (continued)

3. <u>WATER</u>  Will the proposed action result in:	IMPACTS				Can Impacts Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen, turbidity, or pathogens?			x			3a.
b. Changes in drainage patterns or the rate and amount of surface runoff?		x				
c. Alteration of the course or magnitude of flood water or other flows?	x					3c.
d. Changes in the amount of surface water in any water body or creation of a new water body?			x			3d.
e. Exposure of people or property to water-related hazards such as flooding?		x				
f. Changes in the quality of groundwater?		x				
g. Changes in the quantity of groundwater?		x				
h. Increase in the risk of contamination of surface or groundwater?		x				
i. Violation of the Montana Nondegradation Statute?		x				
j. Effects on any existing water right or reservation?		x				
k. Effects on other water users as a result of any alteration in surface or groundwater quality?		x				
l. Effects on other users as a result of any alteration in surface or groundwater quantity?		x				
m. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Water Resources (Attach additional pages of narrative if needed):

3a. Temporary discharge of turbid water during removal of existing culvert and replacement with new culvert. Expected to last for 2-4 hours during one day.

3c. Each spring, high flows during runoff cause the water elevation in Gooderich Bayou to increase greatly, which impounds water upstream of the Capistrano Drive crossing. Overflow pipes are currently in place. These will be replaced with pipes that can discharge high flows more appropriately.

3d. Placement of a fish barrier will raise the elevation of the bayou during low flow periods. This amount would be within the range of fluctuation in elevation that bayou currently exhibits.

**PHYSICAL ENVIRONMENT** (continued)

4. <u>VEGETATION</u>  Will the proposed action result in:	IMPACT				Can Impacts Be Mitigated*	Comment Index
	Unknown *	None	Minor*	Potentially Significant*		
a. Changes in the diversity, productivity, or abundance of plant species (including trees, shrubs, grass, crops, and aquatic plants)?		x				
b. Alteration of a plant community?		x				
c. Adverse effects on any unique, rare, threatened, or endangered plant species?		x				
d. Reduction in acreage or productivity of any agricultural land?		x				
e. Establishment or spread of noxious weeds?		x				
f. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Vegetation Resources (Attach additional pages of narrative if needed):

\*Include an attachment with a narrative explanation describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

## PHYSICAL ENVIRONMENT

5. FISH/WILDLIFE Will the proposed action result in:	IMPACT				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Deterioration of critical fish or wildlife habitat?		x				
b. Changes in the diversity or abundance of game animals or bird species?			x		Yes	5b.
c. Changes in the diversity or abundance of non-game species?			x			5c.
d. Introduction of new species into an area?		x				
e. Creation of a barrier to the migration or movement of animals?				x		5e.
f. Adverse effects on any unique, rare, threatened, or endangered species?			x			5f.
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest, or other human activity)?		x				
h. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Fish/Wildlife Resources (Attach additional pages of narrative if needed):

5b. The presence of rainbow trout in Gooderich Bayou during spawning season allows limited opportunity for angling. Landowner Mont Rosenberg uses Gooderich Bayou for angling programs involving handicapped children. Because this project is specifically designed to limit access for rainbow trout to the upper reaches of the bayou during low flow, this angling opportunity will likely be affected. In order to mitigate for this, MFWP will stock the portion of Gooderich Bayou, upstream of the dike, with 250 genetically pure westslope cutthroat trout on an annual basis.

5c. Trapping surveys conducted during 2001 and 2002 indicated that nongame species such as mountain whitefish, northern pikeminnow, longnose sucker, coarse scale sucker, and peamouth attempt to use the upper portion of Gooderich Bayou during high spring flows in the Flathead River. Installing a fish barrier on the culvert will likely prevent them from traveling upstream of this point during low flows; however, movement will be possible during high flows.

5e. This project is intentionally designed to disrupt spawning migrations of rainbow trout in the spring in an effort to reduce their numbers and ultimately reduce the potential for them to hybridize with native westslope cutthroat trout. Because rainbow trout typically spawn in the spring during low flow, this barrier should act mostly as a seasonal migration control. When high flows occur in June, the overflow pipes will convey water and allow nongame species access to the upper reaches of the bayou to facilitate spawning. These overflow pipes are expected to function much in the same way they do now.

5f. Success of this project should improve genetic purity of westslope cutthroat trout in the Flathead River system by removing a species that can hybridize with it.

**HUMAN ENVIRONMENT**

6. <u>NOISE/ELECTRICAL EFFECTS</u> Will the proposed action result in:	IMPACT				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Increases in existing noise levels?		x				
b. Exposure of people to severe or nuisance noise levels?		x				
c. Creation of electrostatic or electromagnetic effects that could be detrimental to human health or property?		x				
d. Interference with radio or television reception and operation?		x				
e. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Noise/Electrical Effects (Attach additional pages of narrative if needed):

**HUMAN ENVIRONMENT**

7. <u>LAND USE</u> Will the proposed action result in:	IMPACT				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?		x				
b. Conflict with a designated natural area or area of unusual scientific or educational importance?		x				
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the proposed action?		x				
d. Adverse effects on or relocation of residences?		x				
e. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Land Resources (Attach additional pages of narrative if needed):

\*Include an attachment with a narrative explanation describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.



**HUMAN ENVIRONMENT**

8. <u>RISK/HEALTH HAZARDS</u>  Will the proposed action result in:	IMPACT				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Risk of an explosion or release of hazardous substances (including, but not limited to oil, pesticides, chemicals, or radiation) in the event of an accident or other forms of disruption?		x				
b. Affect an existing emergency response or emergency evacuation plan or create a need for a new plan?		x				
c. Creation of any human health hazard or potential hazard?		x				
d. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Risk/Health Hazards (Attach additional pages of narrative if needed):

\*Include an attachment with a narrative explanation describing the scope and level of impact. If the impact is unknown, explain why the unknown impact has not or cannot be evaluated.

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**HUMAN ENVIRONMENT**

9. <u>COMMUNITY IMPACT</u>  Will the proposed action result in:	IMPACT*				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?		x				
b. Alteration of the social structure of a community?		x				
c. Alteration of the level or distribution of employment or community or personal income?		x				
d. Changes in industrial or commercial activity?		x				
e. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?		x				
f. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Community Impact (Attach additional pages of narrative if needed):

**HUMAN ENVIRONMENT**

10. <u>PUBLIC SERVICES/TAXES/UTILITIES</u>  Will the proposed action result in:	IMPACT*				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Have an effect upon or result in a need for new or altered governmental services in any of the following areas: fire or police protection, schools, parks/recreational facilities, roads or other public maintenance, water supply, sewer or septic systems, solid waste disposal, health, or other governmental services? If any, specify.		x				
b. Have an effect upon the local or state tax base and revenues?		x				
c. Result in a need for new facilities or substantial alterations of any of the following utilities: electrical power, natural gas, other fuel supply or distribution systems, or communications?		x				
d. Result in increased used of any energy source?		x				
e. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Public Services/Taxes/Utilities (Attach additional pages of narrative if needed):

## HUMAN ENVIRONMENT

11. <u>AESTHETICS/RECREATION</u> Will the proposed action result in:	IMPACT*				Can Impact Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?		x				
b. Alteration of the aesthetic character of a community or neighborhood?		x				
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings? (Attach tourism report)			x			11c.
d. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Aesthetics/Recreation (Attach additional pages of narrative if needed):

11.d. Although angling is highly limited in this area, local residents have indicated it does occur, and with some success. Because the availability of rainbow trout for angling will likely be reduced, MFWP will mitigate this by stocking the upstream portion of the bayou with 250 westslope cutthroat trout annually. Post treatment electrofishing surveys and angling reports will be used to determine the success of these supplemental stocking efforts. Because these cutthroat trout will have unrestricted downstream movement, it may be difficult to keep them in the bayou. If stocking efforts are unsuccessful at maintaining a population in the bayou, stocking will be discontinued.

## HUMAN ENVIRONMENT (continued)

12. <u>CULTURAL/HISTORICAL RESOURCES</u> Will the proposed action result in:	IMPACT				Can Impacts Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?		x				
b. Physical change that would affect unique cultural or historic values?		x				
c. Effects on existing religious or sacred uses of a site or area?		x				
d. Other:		x				

Narrative Description and Evaluation of the Cumulative and Secondary Effects on Cultural/Historical Resources (Attach additional pages of narrative if needed):

**SIGNIFICANCE CRITERIA**

13. SUMMARY EVALUATION OF SIGNIFICANCE  Will the proposed action, considered as a whole:	IMPACT				Can Impacts Be Mitigated*	Comment Index
	Unknown*	None	Minor*	Potentially Significant*		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources, which create a significant effect when considered together or in total.)		x				
b. Involve potential risks or adverse effects, which are uncertain but extremely hazardous if they were to occur?		x				
c. Potentially conflict with the substantive requirements of any local, state, or federal law, regulation, standard, or formal plan?		x				
d. Establish a precedent or likelihood that future actions with significant environmental impacts will be proposed?		x				
e. Generate substantial debate or controversy about the nature of the impacts that would be created?	x					
f. Other:		x				

Narrative Description and Evaluation of the Summary Evaluation of Significance (Attach additional pages of narrative if needed):

## **PART II. ENVIRONMENTAL REVIEW (Continued)**

1. Description and analysis of reasonable alternatives (including the no action alternative) to the proposed action whenever alternatives are reasonably available and prudent to consider, and a discussion of how the alternatives would be implemented:

### **Alternative 1 - No Action**

Culvert replacement - If no action were taken to replace the existing culvert, substantial evidence indicates the culvert will likely fail and cause the road to collapse during high spring flows. This will result in a major erosion problem and cause high amounts of road material to ultimately enter the Flathead River proper.

Control of rainbow trout- If no action were taken to control the abundance of rainbow trout, there would remain a continuous supply of nonnative trout to hybridize with native westslope cutthroat trout. The westslope cutthroat trout is currently being petitioned in federal court for threatened species protection under the Endangered Species Act of 1973. This project will serve to diminish the threat to the genetic purity of the species.

### **Alternative 2- Mechanical control**

MFWP could implement mechanical control measures that would include trapping the spawning run in Gooderich Bayou annually, and removing fish to a closed basin lake. Because some fish spawn downstream of the trap, the eggs in those redds would need to be destroyed annually in order to achieve the same outcome.

2. Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:

## **PART III. NARRATIVE EVALUATION AND COMMENT:**

1d. This project would actually improve erosion and/or deposition patterns by replacing a culvert that is likely to fail, which would result in the catastrophic failure of the dike and road. Such a failure could result in significant amounts of sediment added to the Flathead River system.

3a. Temporary discharge of turbid water during removal of existing culvert and replacement with new culvert. Expected to last for 2-4 hours during one day.

3c. Each spring, high flows during runoff cause the water elevation in Gooderich Bayou to increase greatly, which impounds water upstream of the Capistrano Drive crossing. Overflow pipes are currently in place. These will be replaced with pipes that can discharge high flows more appropriately.

3d. Placement of a fish barrier will raise the elevation of the bayou during low flow periods. This amount would be within the range of fluctuation in elevation that bayou currently exhibits. 5b. The presence of rainbow trout in Gooderich Bayou during spawning season allows limited opportunity for angling. Landowner Mont Rosenberg uses Gooderich Bayou for angling programs involving handicapped children. Because this project is specifically designed to limit access for rainbow trout to the upper reaches of the bayou during low flow, this angling opportunity will likely be affected. In order to mitigate for this, MFWP will stock the portion of Gooderich Bayou, upstream of the dike, with 250 genetically pure westslope cutthroat trout on an annual basis.

5c. Trapping surveys conducted during 2001 and 2002 indicated that nongame species such as mountain whitefish, northern pikeminnow, longnose sucker, coarse scale sucker, and peamouth attempt to use the upper portion of Gooderich Bayou during high spring flows in the Flathead River. Installing a fish barrier on the culvert will likely prevent them from traveling upstream of this point during low flows; however, movement will be possible during high flows.

5e. This project is intentionally designed to disrupt spawning migrations of rainbow trout in the spring in an effort to reduce their numbers and ultimately reduce the potential for them to hybridize with native westslope cutthroat trout. Because rainbow trout typically spawn in the spring during low flow, this barrier should act mostly as a seasonal migration control. When high flows occur in June, the overflow pipes will convey water and allow nongame species access to the upper reaches of the bayou to facilitate spawning. These overflow pipes are expected to function much in the same way they do now.

5f. Success of this project should improve genetic purity of westslope cutthroat trout in the Flathead River system by removing a species that can hybridize with it.

11.d. Although angling is highly limited in this area, local residents have indicated it does occur, and with some success. Because the availability of rainbow trout for angling will likely be reduced, MFWP will mitigate this by stocking the upstream portion of the bayou with 250 westslope cutthroat trout annually. Post treatment electrofishing surveys and angling reports will be used to determine the success of these supplemental stocking efforts. Because these cutthroat trout will have unrestricted downstream movement, it may be difficult to keep them in the bayou. If stocking efforts are unsuccessful at maintaining a population in the bayou, stocking will be discontinued.

## **PART IV. EA CONCLUSION SECTION:**

1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

No EIS is required for this project. This is a minor and routine action designed to avert the collapse of an existing culvert. During the replacement, MFWP would install a fish barrier to prevent movement and subsequent spawning of rainbow trout. This action is designed to protect westslope cutthroat trout by reducing hybridization with rainbow trout.

2. Describe the level of public involvement for this project, if any; and, given the complexity and the seriousness of the environmental issues associated with the proposed action, is the level of public involvement appropriate under the circumstances?

At present, MFWP has contacted landowners in the immediate vicinity and one absentee landowner. MFWP would post this EA on the Department's website, place legal notices, post at local libraries, and MFWP Kalispell-area office.

3. Duration of comment period if any: Thirty days, February 7 through March 9, 2003.
4. Name, title, address, and phone number of the person(s) responsible for preparing the EA:

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